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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,941	09/28/2005	Bjorn Landfeldt	P17716-US2	4612
27045	7590	05/26/2010	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EMDADI, KEYVAN	
			ART UNIT	PAPER NUMBER
			2448	
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			05/26/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/550,941	<b>Applicant(s)</b> LANDFELDT ET AL.	
	<b>Examiner</b> KEYVAN EMDADI	<b>Art Unit</b> 2448	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **RESPONSE TO AMENDMENT**

1. This is responsive to the communication filed on 2/23/2010. Claims 1-24 represented "method and system for centrally allocating addresses and port numbers"
2. Claims 1-4, 6-12, 14-20, 22-24 are amended.
3. Claims 1-24 are rejected.

### **Drawings**

4. Drawings filed on 8/8/2003 have been acknowledged by the examiner.

### **Claim Rejections – 35 USC 102**

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3,7-11,15,16-17,19-20,23 are rejected under 35 U.S.C. 102(e) as being anticipated by Biswas et al. (US Pat. No. US7,653,745 B1).

**As per claims 1, 9, 16, 23 Biswas discloses:**

**- A method/system/device/computer program for enabling establishment of a connection between a node of a private domain and a node of a public domain through an intermediate communication gateway having a pool of**

**public domain gateway addresses for public domain representation of private domain nodes, said method comprising the steps of:**

**- centrally allocating by the intermediate communication gateway, in response to a configuration request initiated from the private domain node, a public domain gateway address from said pool of gateway addresses and a private domain port number for said private domain node,**

(Biswas, col. 1, lines 50-60, and col. 2, lines 55-67) the edge router initiates a request for assignment of an inside address, and then receives an assignment of an inside address and range of usable ports.

**- wherein said step of centrally allocating comprises the step of identifying, based on predetermined connection information derivable from said configuration request, an public domain gateway address and a private domain node port number that in combination with said predetermined connection information define a public domain gateway state representation that has no counterpart in any existing gateway connection state;**

(Biswas, col. 1, lines 35-45) the router maintains a static mapping between the requestors inside address and assigned outside address.

**- initiating establishment of said connection by the intermediate communication gateway at least partly based on the allocated public domain gateway address and private domain port number,**

(Biswas, col. 2, lines 55-67) the establishment of the connection through the communication gateway is based on the public address and internal assigned private port number.

**- and transmitting the allocated public domain gateway address and private domain port number from the intermediate communication gateway to the requesting private domain node in a configuration reply.**

(Biswas, col. 2, lines 55-67) the edge router receives a transmission containing the public domain address and private port number in a configuration reply.

**As per claims 2, 10, 17 Biswas discloses:**

- **The method/system according to claim 1, wherein said predetermined connection information includes at least one of public domain node address information and public domain node port information.**

(Biswas, col. 2, lines 35-45) the gateway maintains a mapping between the public node address and public node port information.

**As per claims 3, 11, 19, Biswas discloses:**

- **The method/system/device according to claim 1, wherein a gateway connection state is established in said gateway based on said public domain gateway state representation and a representation of a private domain routing path between said gateway and said private domain node.**

(Biswas, col. 2, lines 35-45) the gateway maintains a mapping of the path between the public domain and private domain including the port mapping the gateway to the private node.

**As per claim 7 Biswas discloses:**

- **The method according to claim 1, further comprising the step of the private domain node configuring a communication interface according to said allocated public domain gateway address and private domain node port number.**

(Biswas, col. 5, lines 40-45) the DHCP server obtains a mapping between inside addresses and outside addresses and associated port numbers.

**As per claims 8, 15 Biswas discloses:**

**- The method/system according to claim 1, further comprising the step of establishing a private domain routing path between said gateway and said private domain node.** (Biswas, col. 2, lines 60-67) the edge router receives and maintains an inside address and associated port comprising the routing path between the gateway and the private domain node.

**As per claim 9, 20 Johnson discloses:**

**- The system/device according to claim 16, wherein said allocating means performs allocation in response to a configuration request initiated from the private domain node, and said transmitting means transmits the allocated public domain gateway address and private domain port number to the private domain node in a configuration reply.**

(Johnson, Paragraph 66 lines 1-10, and Fig. 1) the address server (gateway resource manager) responds to determining that the datagram message is not represented in the device access mapping table. The server creates an entry in the mapping table that includes the private devices private address, the private devices private port, and the public address of the gateway.

### **Claim Rejections – 35 USC 103**

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4-6, 12, 13, 14, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biswas et al. (US Pat. No. US7,653,745 B1) in view of Alkhatib (Pub no. US 2002/0184390 A1).

**As per claim 4 claim 1 is incorporated**, Biswas does not specifically teach wherein the allocated public domain gateway address and private domain node port number are represented by an allocated socket network address and a source port number, and the predetermined connection information includes a destination network address and a destination port number, and the public domain gateway state representation is defined by a unique set of socket parameters including the allocated socket domain address and source port number, the destination network address and the destination port number. However Alkhatib teaches wherein the allocated public domain gateway address and private domain node port number are represented by an allocated socket network address and a source port number, and the predetermined connection information includes a destination network address and a destination port number, and the public domain gateway state representation is defined by a unique set of socket parameters including the allocated socket domain address and source port number, the destination network address and the destination port number in the analogous art.

(Alkhatib paragraph 45 10-14) socket addresses are used to make a connection.

It would have been obvious to one skilled in the art at the time of invention to incorporate the capability to represent socket network addresses and port numbers into the invention described by Biswas to have the flexibility to use sockets to represent ports and network addresses.

**As per claim 5 claim 1 is incorporated**, Biswas does not specifically teach wherein said configuration reply is a DNS (Domain Name Server) reply. However Alkhatib discloses the claim limitation wherein said configuration reply is a DNS (Domain Name Server) reply. (Alkhatib paragraph 45 10-14) the operating system receives a reply from a DNS server.

It would have been obvious to one skilled in the art at the time of invention to incorporate the DNS server into the invention described by Biswas to have the flexibility to have a DNS server in the network.

**As per claim 6, claim 5 is incorporated, Biswas does not specifically teach wherein said allocated public domain gateway address and private domain node port number are conveyed in a dedicated DNS record in said DNS reply.** However Alkhatib teaches **wherein said allocated public domain gateway address and private domain node port number are conveyed in a dedicated DNS record in said DNS reply** in the analogous art. (Alkhatib paragraph 45, lines 21-26) the operating system retrieves a domain name from a DNS server through reverse DNS lookup, the TRACERT command can easily be used to determine the gateway(s) and nodes once the domain is retrieved.

It would have been obvious to one skilled in the art at the time of invention to incorporate the DNS reply that enables the determination of the gateway(s) and node information into the invention described by Biswas to gain the benefit of having access to said information.

**As per the system claims 12-14, these do not teach or define any new limitations above method claims 4-6 and are rejected for similar reasons.**

**As per claim 18, it does not teach or define any new limitations above claim 4 and is rejected for similar reasons.**

**As per claim 21-22 they do not teach or define any new limitations above claims 5-6 and is rejected for similar reasons.**

**As per claim 24, Biswas discloses:**

**- a private domain communication terminal arranged for communication with any of a number of public domain hosts via a communication gateway**



**having a pool of public domain gateway addresses for enabling public domain representation of inside realm communication terminals, said communication terminal comprising:**

**- means for configuring a communication interface according to said outside- realm gateway address and said terminal port number.**

(Biswas, col. 2, lines 55-67) the establishment of the connection through the communication gateway is based on the public address and internal assigned private port number.

**- means for requesting from the communication gateway, central configuration for communication with a selected one of the public domain hosts, wherein the central configuration information is centrally allocated by the communication gateway; means for receiving a configuration reply including a centrally allocated public domain gateway address and a centrally allocated private domain terminal port number, said allocated public domain gateway address and said allocated terminal port number.**

(Biswas, col. 1, lines 35-45) the router maintains a static mapping between the requestors inside address and assigned outside address.

**Biswas does not specifically teach:**

**- in a modified DNS (Domain Name Server) query...DNS...being arranged in a dedicated DNS record in said configuration reply.**

However Alkhatib teaches **in a modified DNS (Domain Name Server) query...DNS...being arranged in a dedicated DNS record in said configuration reply** in the analogous art.

(Alkhatib paragraph 61) requests queries are made of the described DNS server.

Therefor, it would have been obvious to one skilled in the art to combine this DNS query type configuration request capability into the invention described by Biswas in to gain the ability to perform configurations via a DNS query.

### **Response to Arguments**

9. Applicants arguments, filed 2/23/2010 with respect to the 35 U.S.C. 102(b) rejections has been fully considered and are persuasive, these rejections have been withdrawn. However, upon further consideration, a new 35 U.S.C. 102(e) grounds of rejection has been made in view of Biswas et al. (US Pat. No. US7, 653,745 B1).

### **Conclusion**

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).  
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.  
Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEYVAN EMDADI whose telephone number is (571)270-7320. The examiner can normally be reached on Monday-Thursday 7:30AM to 5:30PM EST, Alternate Fridays.  
If attempts to reach the examiner by telephone are unsuccessful,

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the examiner's supervisor, Firmin Backer can be reached on 571-272-703.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-6703.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEYVAN EMDADI/

Examiner, Art Unit 2448

Date: May 14, 2010

/FIRMIN BACKER/

Supervisory Patent Examiner, Art Unit 2448